



# Enduris\* 3500SC

## Silicone Roof Coating

### Product Description

GE Enduris 3500SC silicone roof coating is a high performing protective barrier for a variety of architectural surfaces and roofing substrates. Upon cure, Enduris 3500SC silicone roof coating forms a durable, breathable and waterproof roofing membrane that is highly resistant to degradation from heat, cold, UV light, and natural weathering.

### Key Features and Typical Benefits

- **Silicone Durability**—Cured silicone rubber exhibits excellent long-term resistance to natural weathering, including extreme temperatures, ultraviolet radiation, rain, and snow.
- **Low VOC Formula**—High solids formulation results in low Volatile Organic Compounds content that is well below the current limits of California’s Air Quality Management Districts.
- **Ease of Use**—Enduris 3500SC silicone roof coating is a single component material that requires no mixing of separate components, and can be applied with common airless equipment, roller or brush.
- **High Build Formulation**—Allows for single coat application and hangs on to peaks without sagging.
- **Storage & Shelf Life**—Enduris 3500SC silicone roof coating can be stored in unheated warehouses during cooler months without the risk of freezing. Shelf life is 18 months from date of manufacture when properly stored.

- Building materials that might bleed oil or solvents. These include, but are not limited to, certain vulcanized rubber products, tapes, failed sealants, some caulking compounds and asphaltic/mastic materials unless appropriate preparation or basecoats are used. Consult Momentive Performance Materials (MPM) technical services for base coat recommendations.
- Surfaces where adhesion has not been verified by testing.
- Enduris 3500SC silicone roof coating requires atmospheric moisture for propagation of cure, thus it is not suitable for use in totally confined spaces.

### Potential Applications

For structurally sound roofing applications including over existing coatings, single ply, modified bitumen and BUR, foam, metal and other horizontal and vertical roofing. Perform an adhesion test on each surface type to verify adhesion.

**NOTE: Enduris 3500SC silicone roof coating should not be considered for:**

- Use on pedestrian, deck or frequent traffic bearing surfaces.
- Cold storage roofing application without vapor barrier, cryogenic tank applications, or continuous water immersion.
- Unprepared surfaces including but not limited to those that are wet, dusty, oily, mildewed, heavily chalked, blistered or otherwise structurally unsound.

### Packaging

Enduris 3500SC silicone roof coating is currently available in 5 gallon plastic pails (5 gallons, 18.9 liters, 54 pounds or 24.5 kg) and 55 gallon chimed steel drums (50 gallons, 208.2 liters, 540 pounds or 245.2 kg). Other packaging sizes may be available upon request.

### Enduris 3500SC Product Colors



## Typical Physical Properties

Typical physical property values of Enduris 3500SC silicone roof coating as supplied are set forth in the table below:

Property	Value <sup>(1)</sup>	Test Method
Solids Content, Volume Weight	90	ASTM D1644-01 (Modified)
	91	
Tack-Free Time	45-60 minutes	ASTM D3960
Skin-Over Time	20-25 minutes	WPSTM C-560
Viscosity	20,000 cps	ASTM D2196
Tensile Strength	204 psi (1.41 MPa)	ASTM D2370
Elongation	350%	ASTM D2370
Durometer Hardness Shore A	36	ASTM D2370
VOC	<24 g/L	EPA Method 24
Permeance	9.3 perms	ASTM E96 (BW)
Tear Resistance	32 lbf/in.	ASTM D624
Low Temperature Flexibility	Pass	ASTM D522 (B)
Solar Reflectance - Initial	.85	ASTM C1549
Thermal Emittance - Initial	.89	ASTM C1371
SRI Value - Initial	107	ASTM C1549
Solar Reflectance - Aged <sup>(2)</sup>	.80	ASTM C1549
Thermal Emittance - Aged <sup>(2)</sup>	.90	C 1371
SRI Value - Aged <sup>(2)</sup>	100	ASTM E1980

(1) Typical properties are average data and are not to be used as or to develop specifications.  
(2) Accelerated aging test by QUV; independently tested, verified and reported.

## Installation

Refer to Guide Specification for surface preparation requirements, design information and detailed application instructions.

## Uncured Product Storage

Enduris 3500SC silicone roof coating should be stored in sealed containers in a dry area, out of direct sunlight and high heat. Do not open containers until ready for use and store containers at or below 109°F (43°C) to maintain full shelf life. Enduris 3500SC silicone roof coating generally can be stored in unheated warehouses during the cooler months without the risk of freezing. Enduris 3500SC silicone roof coating reacts with atmospheric moisture to cure. Once containers are open and exposed to the atmosphere, a skin will form on the material over time. The formation of skin will be negligible in winter months but can form quickly (minutes) under hot and humid conditions. Cured skin that has formed on the top of the material must be removed or screened from the bulk material, as it may contribute to pump clogging. Take appropriate precautions to cover open containers during use.

## Surface Preparation

Enduris 3500SC silicone roof coating can be applied to itself as well as a variety of roofing materials and substrates including: single ply membranes (TPO, PVC, EPDM, CSPE, and Hypalon™), spray-applied polyurethane foam, metal, concrete, and common parapet/coping materials. Asphaltic substrates such as modified bitumen, smooth

BUR, and granulated cap sheet may require bleed blocker. Surfaces to which Enduris 3500SC silicone roof coating is to be applied must be clean, dry, structurally sound and free of loose particles, dirt, dust, oil, frost, mildew and other contaminants. Damage to the underlying roof system, such as cracks, openings, holes, etc. should be properly repaired prior to application. Saturated substrates must be removed and repaired appropriately. Users of Enduris 3500SC silicone roof coating should verify that suitable adhesion can be attained to all existing roofing materials to be coated prior to large scale application of the coating. It is recommended that a test patch be cleaned and coated with Enduris 3500SC silicone roof coating to verify the effectiveness of the asphalt bleed cleaning method and adhesion to the surface(s).

## Application Guidelines

Enduris 3500SC silicone roof coating should be applied as received and dilution with solvent is not recommended. If settling in the package has occurred, gently stir the material prior to use, taking care to not mix air into the material. Care should be taken to avoid overspray onto adjacent building materials, vehicles, plants, etc. Overspray can be cleaned up before it has cured by wiping alternately with solvent and dry rags. Cured material can be removed from surfaces with a razor blade, or scrubbed off with steel wool or synthetic abrasive pads and solvent. To control overspray, avoid spraying in winds that may cause drift. Surfaces not intended for coating should be masked or covered. Enduris 3500SC silicone roof coating should be sprayed or rolled ensuring uniform build and thorough coverage and is typically applied in one coat. If applying in multiple coats, allow adequate time between each coat for the coating to cure before applying additional coat. Final cured film thicknesses must be free of voids, pinholes, cracks or blisters.

## Application Temperature and Weather

Enduris 3500SC silicone roof coating can be applied throughout the year as long as the substrates being coated are completely dry. Frost and/or moisture can interfere with adhesion. Lower temperatures will lengthen the skin over, tack free and ultimate cure time and may require an overnight cure in winter months to allow the top coat application to proceed (film build may not be sufficient to allow walk over). Higher temperatures will accelerate the cure rate and decrease the open time of the coating. Contact manufacturer if applying to substrates over 120°F (49°C).

Inclement weather may negatively affect uncured Enduris 3500SC silicone roof coating by displacement of uncured material; therefore, application of coating should not proceed if heavy rain, hail or snowfall is impending or expected within 24 hours of application.

## Installation—continued

### Application Thickness

Please refer to Warranty Program for GE Enduris Silicone Coatings for minimum dry mil thickness (Dry Film Thickness, DFT) and coverage rates. Coverage rates shown are approximate and do not include material losses during application. Moreover, certain surfaces may require additional coating or back rolling to achieve minimum dry millage requirements. Testing should be performed to determine actual coverage rate necessary to achieve desired dry film thickness. Theoretical coverage rate of Enduris 3500SC silicone roof coating is 14.4 mils (368 microns) Dry Film Thickness/gallon/100 square feet.

### Application Equipment

Enduris 3500SC silicone roof coating can be applied by spraying, rolling or brushing. Enduris 3500SC silicone roof coating works with most commercially available spray application equipment that can deliver a minimum of 3,300 psi at the spray tip for at least 2.2 gallons per minute. Always use components rated for the required pump pressure. Hoses should be vapor lock type for prevention of moisture contamination. Contact MPM technical services for equipment recommendations. Cleanup of spray equipment containing uncured material may be accomplished by flushing with mineral spirits or toluene. DO NOT USE water or alcohol based solvents. Enduris 3500SC silicone roof coating cures by reacting with moisture, thus it should not be left in pumping equipment and hoses for prolonged periods unless equipment contains moisture lock hoses, fittings and seals. Equipment without moisture lock hoses, fittings and seals may transmit sufficient moisture vapor to gradually form cured material on interior of hose wall surfaces and at unsealed connections. This can cause increased operating pressures and flow restriction.

### Application Coating Vertical Surfaces

When coating vertical wall surfaces, other than parapets and walls associated with the roofing system, GE SilShield\* architectural coatings is suggested. Contact an MPM representative for additional information.

### Applicable Standards

- **ASTM D6694**—Standard Specification for Liquid-Applied Silicone Coating Used in Spray Polyurethane Foam Roofing Systems. Result: Pass
- **Cool Roof Rating Council (CRRC)**—Rated Product ID 1200-004. Enduris 3502SC roof coating (white) only.

- **UL 790**—UL 790-Flammability Characteristics—Enduris 3500SC silicone roof coating carries Class A credentials as tested under UL 790 procedures over various substrates. Refer to UL report TGFU.R5346 for specific information.

- **CAL FIRE**

- **California Title 24 Compliant**—Can be used to comply with Title 24, Part 6 (only applies to Enduris 3502SC white coating).

- **FM Global—FM4470**

### Technical Services

For additional technical resources, please contact your local customer service center. (See Customer Service Centers section herein for contact information.) Any technical advice furnished by Momentive Performance Materials (MPM) or any representative of MPM concerning any use or application of any MPM product is believed to be reliable, but MPM makes no warranty, expressed or implied, of suitability for use in any application for which such advice is furnished.

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### Product Safety, Handling and Storage

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## Customer Service Centers

<b>Americas</b>	+1 800 295 2392  +1 704 805 6946  Email: commercial.services@momentive.com
<b>Europe, Middle East, Africa, and India</b>	+00 800 4321 1000  +40 212 044229  Email: 4information.eu@momentive.com
<b>Asia Pacific</b>	<b>Japan</b> 0120 975 400 +81 276 20 6182  <b>China</b> +800 820 0202 +86 21 3860 4892  <b>All APAC</b> +60 3 9206 1543  Email: 4information.ap@momentive.com
<b>Visit us at <a href="http://siliconeforbuilding.com">siliconeforbuilding.com</a></b>	

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